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| 10/553,210 | 10/13/2005 | Herbert Wirz | 2360-0429PUS1 | 1244 |

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BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

| EXAMINER | |
|---|---|
| KEENAN, JAMES W | |

| ART UNIT | PAPER NUMBER |
|---|---|
| 3652 | |

| NOTIFICATION DATE | DELIVERY MODE |
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| 02/17/2010 | ELECTRONIC |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/553,210 | WIRZ ET AL. | |
| | Examiner | Art Unit | |
| | James Keenan | 3652 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *23 November 2009*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *1-6,8-14,16 and 18-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-6,8-14,16 and 18-23* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

1. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

2. Claims 1-6, 8-14, 22 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Despite applicant's amendment, lines 6-11 of claim 1 are still unclear, ambiguous, and replete with functionally recited prepositional phrases for which the subjects to which they belong can not readily be determined. For example, claim 1 recites that the intermediate store is "arranged in a fixable location above the storage area of the objects to be picked up on the collecting device…". Inasmuch as the collecting device has not been set forth as picking up objects, it is unclear whether the above passage means that the intermediate store or the objects is/are the subject/s of the phrases "to be picked up" and "on the collecting device". Other prepositional phrase in lines 6-11 contain similar ambiguities.

Claim 13, line 14, the recitation "the collecting device cooperates with the storage units" appears to be an active method step, which is not understood in an apparatus claim.

Claim 14, line 2, --each-- should apparently be inserted after "are".

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 13 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peltomaki (EP 767113) in view of Eisele (DE 2629718), both previously cited).

Peltomaki shows a warehouse arrangement comprising a collecting device 20 movable over a storage area 3 by a robot 12, intermediate store 21 arranged on the collecting device for accommodating objects successively picked from the storage area in stacks or partial stacks in separate pick-up steps, and a gripping device 25, 26 arranged on the collecting device for lifting stacks or partial stacks, the gripping device being vertically movable and formed by “mutually opposite blades”, as broadly claimed. Outgoing conveyor 14 is considered to be “a storage unit which can be moved independently”, as broadly claimed, and to which objects in the intermediate store are directly transferred (col. 4, lines 6-11 and 50-52).

Peltomaki does not show the storage unit to comprise plural storage units arranged above the storage area on a separate portal bridge from the collecting device.

Eisele shows a collecting device 8 and storage units 9 fixed in a vertical direction and fixedly arranged on a separate and independently movable portal bridge opposite to the collecting device and between which picked-up articles can be directly transferred.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Peltomaki by utilizing storage units on a separate portal bridge, as shown by Eisele, to provide greater storage flexibility.

Re claim 21, the apparatus can clearly perform the method steps recited, inasmuch as they simply mirror the limitations of apparatus claim 13.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Peltomaki in view of Eisele, as applied to claim 13 above, and further in view of Beutler et al (US 6,379,096), previously cited.

Peltomaki does not show the storage unit to comprise a vertical base part and two forwardly projecting holding parts between which objects can be picked up by the collecting device.

Beutler shows a storage unit 16b constructed in such a manner, as clearly seen in figs. 4-5, and which is independently movable relative to a gripping unit 40 which transfers articles directly to the storage unit.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have further modified the apparatus of Peltomaki by constructing the storage unit with a vertical base part and two forwardly projecting holding parts between which objects can be picked up by the collecting device, as shown by Beutler, as this would allow greater flexibility and access to the storage unit.

6. Claims 1, 3/1-5/1, 6, 8, 10-12, 16, 19, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peltomaki in view of Ellington (US 5,599,157, previously cited).

Peltomaki does not teach the blades of the gripping device to be vertically movable “with respect to the intermediate store”. Further, the intermediate store of Peltomaki is not arranged in a fixed location above the storage area.

Ellington teaches a device for picking up objects 12 with a stacking (collecting) device 20, the device being movable over an object to be picked up, the device including an intermediate store 65 to accommodate a stack 22 of articles which can be picked up by a gripping device 66 in separate pick-up steps, wherein the gripping device is formed of opposed blades and is vertically movable relative to the intermediate store (see col. 5, line 26 to col. 6, line 33). The intermediate store is considered to be “arranged in a fixed location above the storage area”, at least to the same extent as is applicant’s portal robot (i.e., they both are mounted for horizontal movement), in view of the ambiguous and inaccurate language noted in the 112/2$^{nd}$ par. rejection set forth above.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Peltomaki by utilizing blades of a gripping device which move vertically relative to the intermediate store, and to have arranged the intermediate store in a fixed location above the storage area, as taught by Ellington, to more effectively and efficiently pick-up a plurality of articles to be stacked in the store.

This also applies to corresponding method claim 16.

Re claim 3, the intermediate stores of Peltomaki and Ellington are formed by “mutually opposite side beams".

Re claim 4, the blades of the gripping devices of Peltomaki and Ellington are mounted in the side beams of the intermediate store.

Re claim 5, the vertical planes of the blades and side beams of Peltomaki and Ellington enclose a space with a rectangular cross section.

Re claims 6, 19, and 22, note in Peltomaki "holding elements" on the lower edges of the blades (fig. 3), as well as similar structure in Ellington.

Re claim 8, Peltomaki as modified does not show a vertically movable element at the upper end of the intermediate store to exert a downward force on the topmost object to stabilize the stack. However, the examiner takes Official Notice that it is generally well known in the stacking art to utilize a vertically movable device to exert a force on the topmost object in a stack to stabilize the stack, and in view thereof, it would have been obvious for one of ordinary skill in the art at the time of the invention to have modified the apparatus of Peltomaki with such a device as an obvious design expediency.

Re claim 10, note in Peltomaki "calibration parts" 23, 24, as broadly claimed.

Re claim 11, although Peltomaki's calibration parts are not C-shaped, the particular shape is considered to be a design choice well within the level of ordinary skill in the art.

Re claim 12, absent any structural limitations, nothing precludes any two or more portions of the collecting device from being considered "a plurality of intermediate stores".

7. Claims 2, 3/2-5/2, 9, 18, 20, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Peltomaki in view of Ellington, as applied to claims 1 and 16 above, and further in view of Blakeley (US 2,735,713, previously cited).

Peltomaki as modified does not show the collecting device to comprise mutually opposite halves movable relative to each other.

Blakeley shows a device for collecting a plurality of stacked objects comprised of two mutually opposite halves B and C which are moved relative to each other to collect the objects therebetween.

It would have been obvious for one of ordinary skill in the art at the time of the invention to have further modified the apparatus of Peltomaki by constructing the collecting device with relatively movable, mutually opposite halves, as shown by Blakeley, as this would simply be an alternate equivalent, art recognized means of collecting vertically stacked articles, the use of which in the apparatus of Peltomaki would require no undue experimentation and produce no unexpected results.

This also applies to corresponding method claim 20.

Re claims 9, 18, and 23, note securing/holding elements 20 of Blakeley.

8. Applicant's arguments filed 11/23/09 have been fully considered but they are not persuasive.

Applicant argues re claims 13 and 21 that the Office action fails to establish how Peltomaki shows the claimed features of the storage units (sentence spanning pages 9 and 10). This argument is not understood. The Office action has already acknowledged

that Peltomaki does not show all the claimed features of the storage units; that is why the secondary reference to Eisele was cited. Applicant then makes a conclusory statement that Eisele fails to show storage units having the claimed limitations, but provides no evidence in support of such a statement. It is noted that Eisele (a non-English language document) was cited by applicant, and thus it is applicant's responsibility to provide evidence, not merely a conclusory statement, to refute the examiner's position.

Applicant continues to argue re claims 1, 3/1-5/1, 6, 8, 10-12, 16, 19, and 22 that Ellington is non-analogous art. However, it has been held that a prior art reference must either be in the field of applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the applicant was concerned, in order to be relied upon as a basis for rejection of the claimed invention. See *In re Oetiker*, 977 F.2d 1443, 24 USPQ2d 1443 (Fed. Cir. 1992). First, the claim scope is so broadly presented as to render moot any argument concerning a particular field of endeavor to which a reference must relate. Applicant's arguments are laced with words/phrases such as "warehouse", "automatic", "sorting and collecting", "conveyor", "computer controlled", "specific number of boxes", etc. However, other than a generic and inferential preamble recitation of "running a warehouse", there is absolutely nothing positively recited in the claims which in any way limit the claim scope to any such fields of endeavor. Applicant's claims are directed to a subcombination collecting device arranged on a movable robot. The collecting device has an intermediate store and a gripping device for lifting generic "objects". In this case, Ellington is reasonably pertinent to the particular problem

because it suggests a better way of picking up objects from above and moving them into a temporary storage location. Further, a harvester is not so disparate from a warehouse, as applicant asserts, in that the wheeled vehicle moving along rows of a field to pick up containers is analogous to a robot moving along aisles of a warehouse.

Applicant also argues that each reference fails to show certain features of the invention. However, as previously noted, it is acknowledged that no single reference shows all features of the claimed invention. The Office action has clearly set forth which features are not shown by Peltomaki, has identified in the secondary references where such features are shown, and has provided reasoning why it would have been obvious to combine the references to arrive at the invention as claimed. Applicant's arguments in this regard are simply not persuasive. For example, applicant argues that Peltomaki "fails to show an intermediate store **at all**" (emphasis added). The examiner has clearly identified element 21 of Peltomaki as an intermediate store. While it is acknowledged that this structure does not include all of the claimed features of applicant's intermediate store, applicant has provided no compelling reasoning why it "fails to show an intermediate store at all".

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to James Keenan whose telephone number is 571-272-6925. The examiner's supervisor, Saul Rodriguez can be reached on 571-272-7097. The fax phone number where this application is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/James Keenan/
Primary Examiner
Art Unit 3652

jwk
2/5/10